TARGET AUDIENCE: Readiness & Operations Flights

A-GRAM

AIR FORCE CIVIL ENGINEER SUPPORT AGENCY

99-50 **NOVEMBER 1999**

QUALIFICATION TRAINING PACKAGE — LIGHTWEIGHT FAIRLEAD BEAM

SYNOPSIS:

We have recently completed a new contingency Qualification Training Package, the Lightweight Fairlead Beam. Included on this new CD are over 600 graphics and photographs, 6 illustrative video clips, and over 60 review questions.

THE LIGHTWEIGHT FAIR-LEAD BEAM, VERSION 1:

The Lightweight Fairlead Beam (LWFB), always used in conjunction with the Mobile Aircraft Arresting System (MAAS), is a recent addition to the contingency inventory. With the addition of the LWFB, the MAAS can be set up to 200 feet away from the runway's edge. The decreased arresting gear profile at the edge of the runway enables wide-body aircraft to operate on MAAS-equipped contingency runways, while still providing critical landing assistance to fighter aircraft.

The package opens with a brief discussion of the technical development of arresting systems, from their origins up to the introduction of the Lightweight Fairlead Beam with its expanded capabilities. Manpower requirements for the installation process, as well as site selection criteria and site preparation, are also presented in the first lesson.

The Lightweight Fairlead Beam system is delivered on a wheeled trailer, which includes:

- Two Lightweight Fairlead Beams
- Two aluminum shipping containers for the system's components
- One MAAS upgrade kit (wooden box)

Lesson 2 discusses these components, as well as the upgrade procedures for the MAAS, which must be performed before it can be used in conjunction with the LWFB.

Before the LWFB can be installed, the MAAS trailers must be in place and secured in position, one on each side of the runway. The next lesson talks about MAAS setback distances and the initial positioning and initial alignment of the Lightweight Fairlead Beam on the runway's edge.

The program continues in Lesson 4 with a thorough discussion of the KM Anchoring System, final alignment procedures, and the tools necessary to complete the installation process. Drag and drop review questions allow the student to practice building the stake line right on the computer screen.

The Lightweight Fairlead Beam system can exist in one of two conditions: deployed or in storage. Lesson 5 highlights the inspection requirements for both conditions, as well as maintenance tips to keep the equipment in good working order for extended periods of time.

The final lesson involves the reconstitution process for the equipment, components and tools. All of the tools and system parts are reuseable, so it is critical that proper cleaning and storage procedures are followed. At the end of the program, students should be ready for hands-on experience. Future contingency deployments will rely on their expertise and ability to perform under pressure in a short period of time.

CONTACTS:

Additional copies of this and other contingency Qualification Training Packages can be requested from:
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